

9

Date: Monday, 1/7/2008 4:31:32 PM  
User: Kim Johnston

# Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DOUBLER KIT
Job Number	: 36652F		
Estimate Number	: 11455		
P.O. Number	:	Part Number	: D314068
This Issue	: 1/7/2008 S.O. No. :	Drawing Number	: D3140 REV F
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / /	Drawing Revision	: F
Previous Run	: 27340F	Material	:
Written By	:	Due Date	: 2/28/2008 Qty: 1 Um: Each
Checked & Approved By	: <u>JA 08.01.8</u>		
Comment	: Est. B 02.11.13 Removed D3140-65/-81/-83; Added D3140-301K J Est. Rev C New dwg rev. ecn781 06.04.18 EC Est Rev:D As per ECN #829 06-11-20 JLM		

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D314010	Doubler Assembly
-----	---------	------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler Assembly

Pick:

Qty	Part Number	Description	Batch
1	D3140-10	Doubler Assy	<u>B 35159 x 2</u>

2.0	D3140101
-----	----------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
2	D3140-101	Doubler	<u>B 35157 x 3</u>

3.0	D3140241
-----	----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
1	D3140-241	Doubler	<u><del>B 18170 x 1</del> / B 27373 x 1</u>

4.0	D3140303
-----	----------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

Doubler

Pick

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Monday, 1/7/2008 4:31:32 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER KIT

Job Number: 36652F

Part Number: D314068

Job Number:



Seq. #:

Machine Or Operation:

Description :

Qty	Part Number	Description	Batch
2	D3140-303	Doubler	B 35158

5.0

D314087

Doubler



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
1	D3140-87	Doubler	B 35155 x 2

6.0

D314092

Doubler



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
1	D3140-91	Doubler	B 27377

7.0

D314095

Doubler



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
3	D3140-95	Doubler	B 35154 x 8 adj.

8.0

D314098

Doubler



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
1	D3140-98	Doubler	see w/10' # 27340 E

9.0

D314099

Doubler



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Doubler

Pick:

Qty	Part Number	Description	Batch
1	D3140-99	Doubler	B 35156 x 1 / B 36761 x 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: PD Date: 08/02/26  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 1/7/2008 4:31:32 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER KIT

Job Number: 36652F

Part Number: D314068

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

D3140104

DOUBLER



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3140-104 Doubler B 27343 x 2 B 34378 x 1

11.0

D3140106

DOUBLER



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D3140-106 Doubler B 27344 x 3

12.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

RD 08/02/26

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

NIA ship to delastek

08/02/25

14.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

①  
08/02/26

Job Completion



08/02/26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

**DART**

DESIGN #	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED JH	APPROVED #	DRAWING NO. D3140	REV. F SHEET 1 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS
A	02.04.18	NEW ISSUE	
B	03.01.23	REMOVE -65/-81/-83; ADD -301/-303	
C	04.11.08	CHANGE DELASTEK SPEC. TEC-77; ADD PART MARKING; ADD NOTES 11, 12, 13; CHANGE ANGLE -95/-97/-98 TO 106°	
D	05.11.23	ADD -103/-104/-105/-106; REMOVE -67	
E	06.06.09	1.75 WAS 1.88, 4.75 WAS 4.13 ON -08/-07, 1.00 WAS 1.20 ON -09/-10	
F	06.10.06	ADD NOTE 14; CORRECT PART TITLE, NOW D3140-09/-92/-104 SHOWN D3140-10/-91/-103 OPPOSITE	

**RELEASED**

06.11.13

QTY -05	QTY -06	QTY -07	QTY -08	QTY -09	QTY -10	PART NUMBER	DESCRIPTION
X						D3140-05	DOOR
	X					D3140-06	DOOR
		X				D3140-07	DOOR
			X			D3140-08	DOOR
		1		X		D3140-09	DOUBLER ASSEMBLY
			1		X	D3140-10	DOUBLER ASSEMBLY
3	3					D3140-57	PAD
1	1					D3140-59	PAD
2	2					D3140-61	PAD
2	2					D3140-63	PAD
		1	1			D3140-69	PAD
		1	1			D3140-71	PAD
		1	1			D3140-73	PAD
		1	1			D3140-75	PAD
		1	1			D3140-77	PAD
		1	1			D3140-79	PAD
				1	1	D3140-85	ANGLE
1	1					D3140-87	DOUBLER
				1	1	D3140-89	DOUBLER
		1				D3140-91	DOUBLER
			1			D3140-92	DOUBLER
3	3					D3140-95	DOUBLER
1						D3140-97	DOUBLER
	1					D3140-98	DOUBLER
		1	1			D3140-99	DOUBLER
		2	2			D3140-101	DOUBLER
		1				D3140-103	DOUBLER
			1			D3140-104	DOUBLER
		1				D3140-105	DOUBLER
			1			D3140-106	DOUBLER
1	1					D3140-241	DOUBLER
1		1				D3140-301	DOUBLER
	1		1			D3140-303	DOUBLER
				5	5	MS20426AD3-4	RIVET

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**DART**

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CHECKED Jh	APPROVED #	DRAWING NO. D3140	REV. F SHEET 2 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS

1

COMPOSITE LAYUP & BONDING I.A.W. DELASTEK PROCESS SPEC. TEC-77  
MATERIAL STORAGE & HANDLING TO BE I.A.W. DART QSI 006  
MAIN LAYUP USES FIBERCOTE E-761/7781 EPOXY FIBERGLASS.  
FILL WITH EPOCAST 87269 OR MAGNOBOND 77 A & B AND MA560 FOAM/ NB-51/30 FOAM

2

FINISH: DUPONT HIGHBUILD GREY PRIMER 1144-S

3

MAKE PARTS IN ACCORDANCE WITH THE FOLLOWING TOOLS/MOLDS:

PART	TOOL
D3140-05	B30-23000-01T
D3140-06	B30-23000-02T
D3140-07	B30-23000-03T
D3140-08	B30-23000-04T
D3140-57	B30-23000-57T
D3140-61	B30-23000-61T
D3140-63	B30-23000-63T
D3140-69	B30-23000-69T
D3140-71	B30-23000-71T
D3140-73	B30-23000-73T
D3140-75	B30-23000-75T
D3140-77	B30-23000-77T
D3140-79	B30-23000-79T
D3140-89	D3140-89T1
D3140-301	D3140-301T1
D3140-303	D3140-303T1

**RELEASED**

06.11.13

4

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (M2024T3S.032)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

5

MATERIAL: 2024-T3 (QQ-A-250/4) 0.020 THICK (M2024T3S.020)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

6

MATERIAL: 5052-H32/H34 (QQ-A-250/8) 0.040 THICK (M5052H32S.040)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

7

MATERIAL: POLIMEX TR75 1" THICK 4.5 LB KLEGECELL

8

ALL DIMENSIONS IN INCHES

9

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

10

MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (M6061-T6S.063)  
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

11

DOUBLER TO SIT ON TOP OF FOAM AT THIS LOCATION

12

DOUBLER TO BE RECESSED FLUSH INTO FOAM AT THIS LOCATION

13

RUBBER STAMP WITH DART P/N D3140-05/-06/-07/-08 USING MIL-STD-130

14

PARTS MUST BE SCUFFED WITH 80 GRIT SANDPAPER PRIOR TO ACID ETCH AND  
ALODINE PER DART QSI 005 4.1

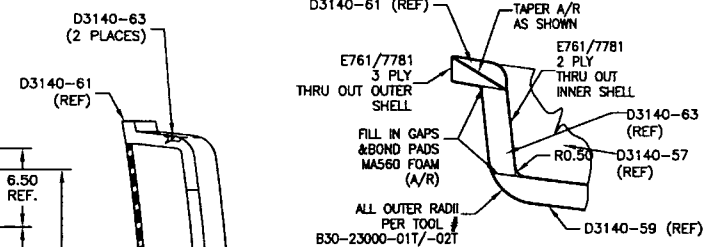
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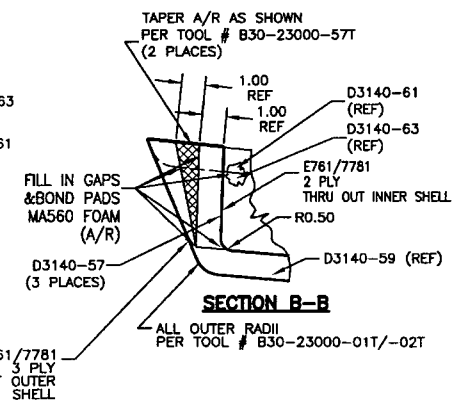
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06.11.13



E761/7781  
3 PLY  
THRU OUT OUTER  
SHELL

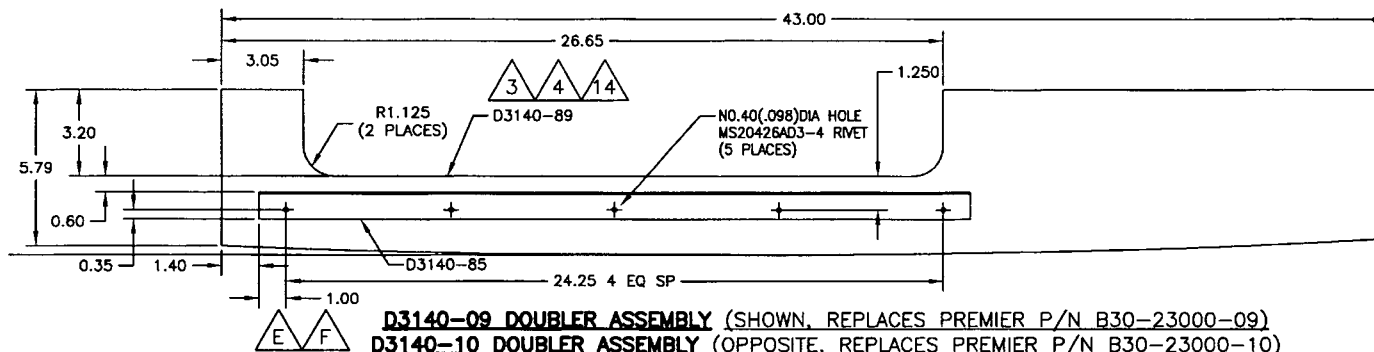


Three triangles are shown, labeled 1, 2, and 3 from left to right.

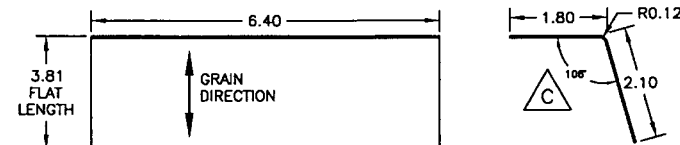
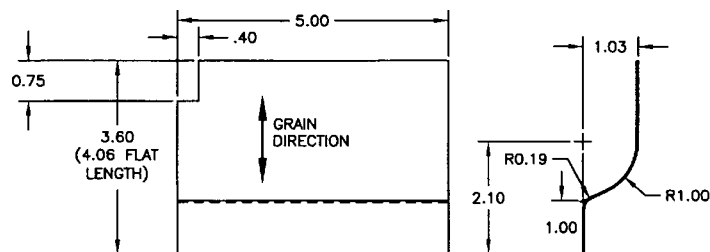
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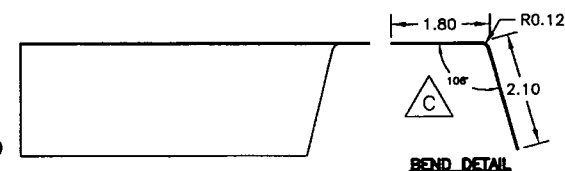
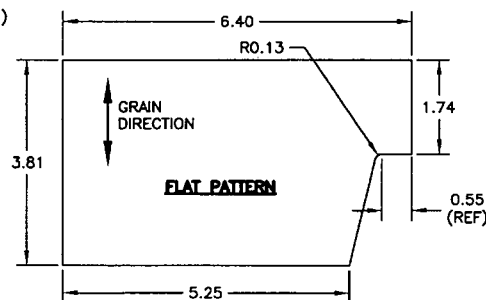
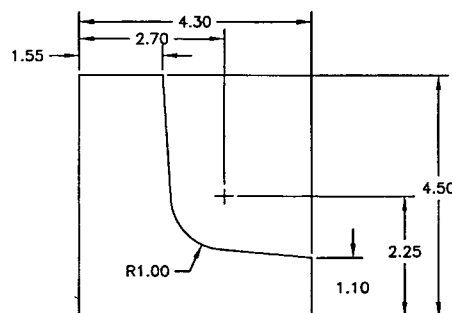


**D3140-101 DOUBLER** (4 14)  
 (REPLACES PREMIER P/N B30-23000-101)



RELEASED

06 11-13

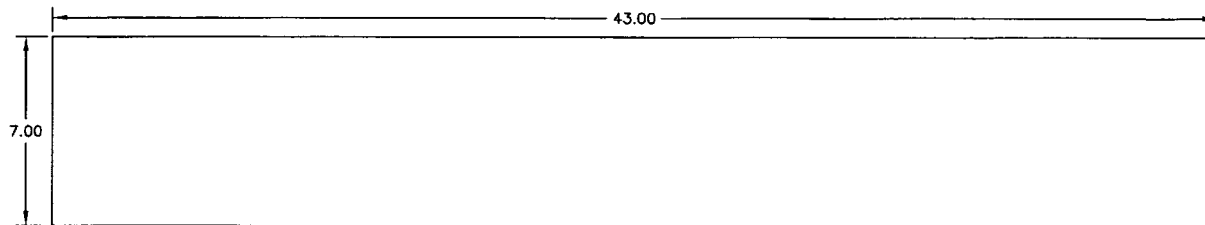


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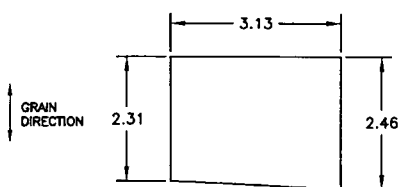
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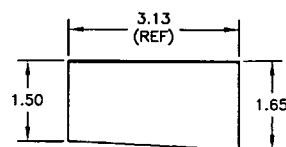
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DATE 06.10.06	TITLE DOOR	SCALE NTS	



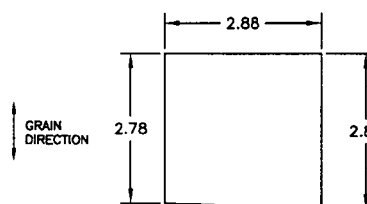
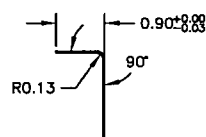
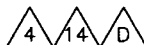
**D3140-87 DOUBLER**  $\triangle 4 \triangle 14$   
(REPLACES PREMIER P/N B30-23000-87)



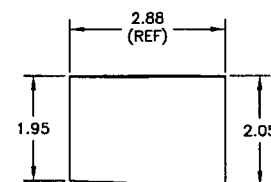
**D3140-105F FLAT PATTERN**  
(USED TO MAKE D3140-105/-106 BRACKETS)



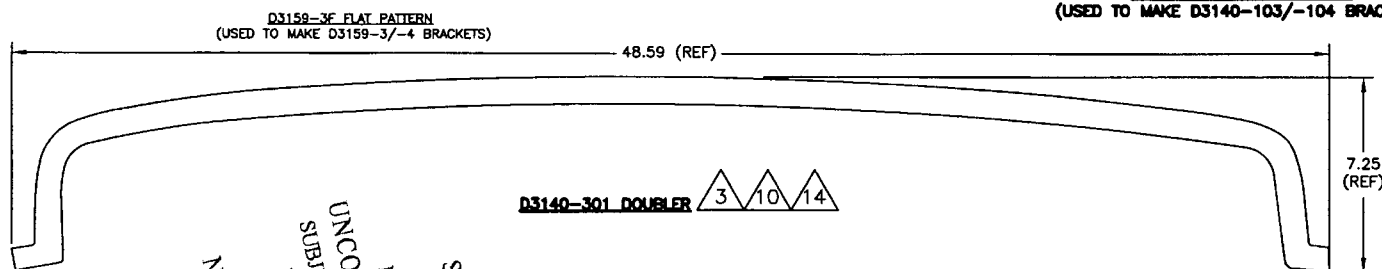
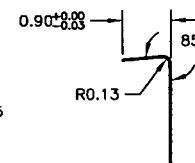
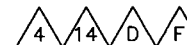
**D3140-105 DOUBLER**  
D3140-106 OPPOSITE



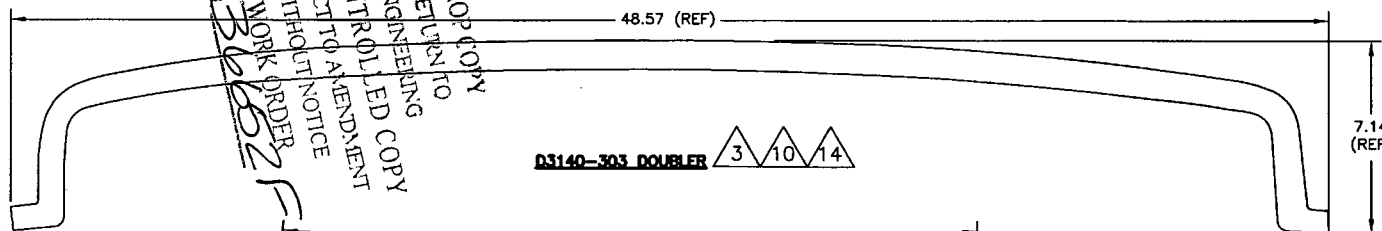
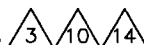
**D3140-103F FLAT PATTERN**  
(USED TO MAKE D3140-103/-104 BRACKETS)



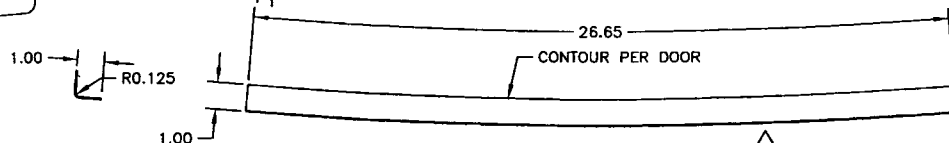
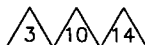
**D3140-104 DOUBLER**  
D3140-103 OPPOSITE



**D3140-301 DOUBLER**



**D3140-303 DOUBLER**



**D3140-85 ANGLE**  $\triangle 6$   
FLAT PATTERN: 26.65" x 1.90"  
(REPLACES PREMIER P/N B30-23000-85)

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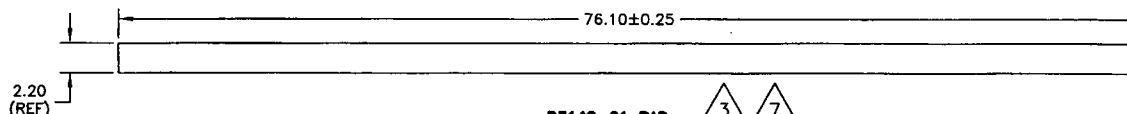
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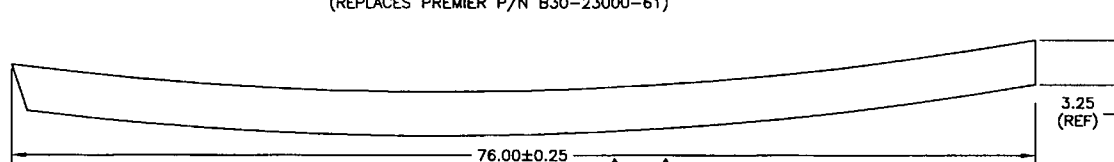
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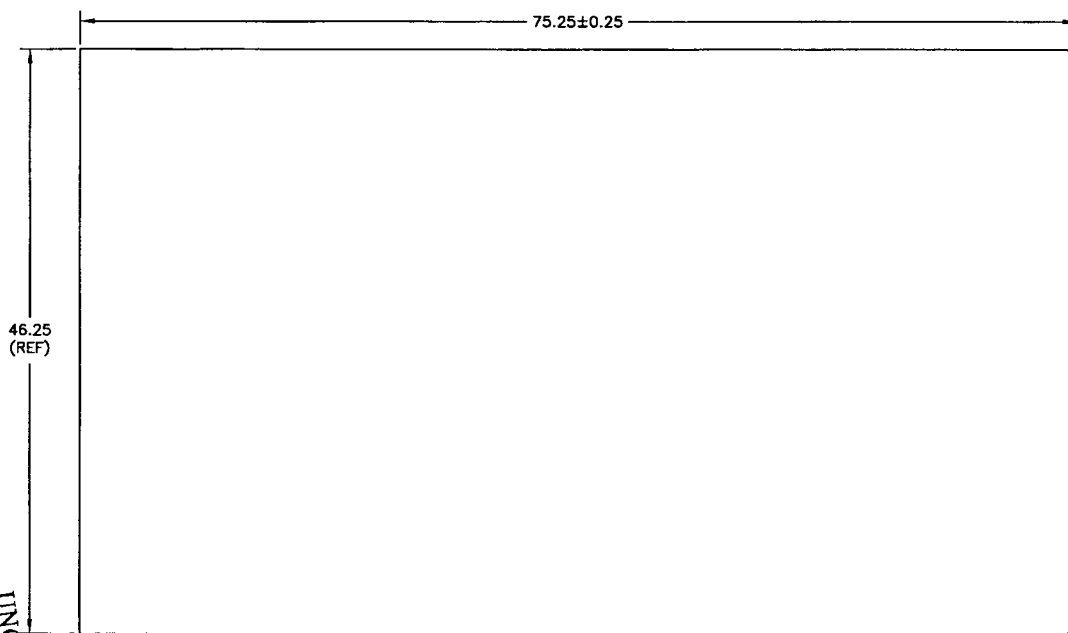
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DATE <b>06.10.06</b>	TITLE <b>DOOR</b>	SCALE <b>NTS</b>	



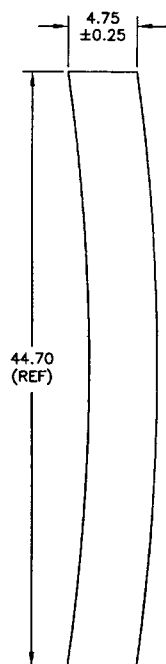
**D3140-61 PAD**  
(REPLACES PREMIER P/N B30-23000-61)



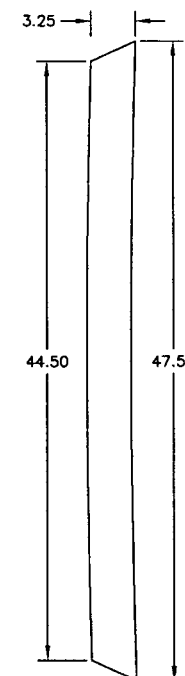
**D3140-63 PAD**  
(REPLACES PREMIER P/N B30-23000-63)



**D3140-59 PAD**  
(REPLACES PREMIER P/N B30-23000-59)



**D3140-57 PAD**  
(REPLACES PREMIER P/N B30-23000-57)



**D3140-241 DOUBLER**  
(REPLACES PREMIER P/N B30-23000-241)

RELEASED

06.11.13

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CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. D3140	REV. F SHEET 7 OF 7
DATE 06.10.06	TITLE DOOR	SCALE	NTS

[illegible]